REMARKS

In response to the Office Action mailed October 17, 2007, Applicants respectfully request reconsideration. Claims 1-8, 11, 26, 27, 29-36, 39, 54-83, 85-99, 101-115, 117 and 118 were previously pending in this application. Claims 1, 29, 56, and 57 have been amended. No new claims have been added. As a result, Claims 1-8, 11, 26, 27, 29-36, 39, 54-83, and 85-118 are pending for examination with Claims 1, 29, 56, 57, 85, 87, 92, 98, 101, 103, 108, and 114 being independent. The application is believed to be in condition for allowance.

Allowable Subject Matter

Applicants note with appreciation allowance of Claims 85-99 and 101-115, and the indication of allowable subject matter in Claims 68-78.

Summary of Telephone Conference with Examiner

Applicants' representatives appreciates the courtesies extended by Examiner Li Liu and the Examiner's Supervisor Ken Vanderpuye in granting and conducting the telephone conference of February 11, 2008.

During the interview the Moon et al. and Riley et al. were discussed. It was noted that Moon et al, does not teach or suggest signals passing through the aperture structure in different wavelength dependent angular directions, signals being sent to or from remote receiver or transmitter devices, and signals being sent to or from remove devices at different angular directions. Further Riley et al. does not teach or suggest dynamic and independent relative motion existing between the different deflectors of the imaging system of Riley.

Examiner Liu and Supervisor Vanderpuye both agreed that the amendments made to Claims 1, 29, and 56 appear to overcome the Moon et al. and Riley et al. references, but further searching would be required in order to determine the allowability of the claims.

Rejections Under 35 U.S.C. §102

The Office Action rejects Claims 1, 3, 27, 29, 31, 55, 57, 59, 83, 117 and 118 under 35 U.S.C. §102(e) as being anticipated by Moon et al., U.S. Patent Application No. 2002/0176151 (Moon). The Office Action also rejects Claim 56 under 35 U.S.C. §102(e) as being anticipated

by U.S. Patent No. 6,763,149 to Riley et al. (Riley). Applicants respectfully traverse these rejections.

Discussion of the Moon Reference in view of Claims 1, 3, 27, 29, 31, 55, 57, 59, 83, 117 and 118:

Moon illustrates a dynamic optical filter comprising a spatial light modulator (abstract). As shown in Fig. 1, input light 12 is received, *at a constant and non-wavelength dependent angle*, by a three-port circulator 16. The three-port circulator 16 is configured to direct light from a first port 18, to a second port 19 (the optical filter system 10), and from the second port 19 to a third port 20, *with each port being located at a constant and non-wavelength dependent angle*. The incoming light is then passed through an aperture 24, *through a constant and non-wavelength dependent angle*, collimated, and directed towards a diffraction grating 30, which separates or spreads spectrally the optical channels of the collimated input signal 28 (paragraph [0104]). The separated light 32 is then directed towards a spatial light modulator 36 which contains multiple micro-mirrors 52. By flipping or tilting a selected number of the micro-mirrors 52, a portion of the incident radiation may be deflected away from the optical path. The remaining un-deflected radiation of the optical channels reflects back though the same optical path towards the circulator 16 (paragraph [0107]).

Amended Claim 1 recites "...passing through the aperture structure in different wavelength dependent angular directions to or from remote receiver or transmitter devices at different angular locations," with the underlined portions representing the limitations added by way of amendment. (The alternative "or" allows for signals to remote receivers, from remote transmitters, or both.)

Amended Claim 1 patentably distinguishes Moon for at least three reasons. First, Moon does not teach or suggest signals passing through the aperture structure *in different wavelength dependent angular directions*. Instead Moon teaches signals being passed through an aperture at constant and non-wavelength dependent angles, as is shown by the signals passing through aperture 24 in Figure 1 of Moon.

Second, Moon does not teach or suggest signals being sent to or from remote *receiver or transmitter* devices. In the device of Moon, signals are instead sent to or from a circulator 16 which in turn directs the signal to or from one of two ports.

Third, Moon does not teach or suggest signals being sent to or from remote devices *at different angular locations*. Moon instead teaches sending signals to the circulator 16, a single device maintained in a constant location.

Thus, amended Claim 1 patentably distinguishes Moon. Claims 1-8, 11, 26, 27, and 117 depend from amended Claim 1 and therefore patentably distinguish Moon for at least the same reasons.

As should be appreciated from the above discussion relating to Claim 1, Claims 29 and 57 are also patentably distinct from Moon. Specifically, Moon fails to teach or suggest passing a signal *in different wavelength dependent angular directions* to or from remote *receiver or transmitter* devices *at different angular locations*, as is required by Claims 29 and 57. Claims 30-36, 39, 54, 55, and 118 depend from Claim 29 and therefore patentably distinguish Moon for at least the same reasons.

Discussion of the Riley Reference in view of Claim 56:

Riley illustrates a method and apparatus for correcting crosstalk and spatial resolution for multi-channel imaging (abstract). In Figure 29 (relied upon by the Office Action), dichroic filters 266, 268, 270, and 272 are *statically placed* in a manner allowing reflected light to be directed toward imaging lenses 40a and 40b and then onto a detector 274 (Col. 30, lines 46-51). In column 22, lines 32-40 (relied upon by the Office Action), Riley provides an alternative embodiment where relative movement exists between an object being imaged and the imaging system *as a whole*.

Amended Claim 56 recites "...independently deflecting electromagnetic waves within a first wavelength band at a first *dynamic* angle and passing electromagnetic waves within a second wavelength band by a first deflector; and independently deflecting electromagnetic waves within a second wavelength band, at a second *dynamic* angle *independent of the first dynamic angle*, by a second deflector, the second deflector positioned to receive the electromagnetic

waves passed through the first deflector," with the underlined portions representing the limitations added by way of amendment.

Riley does not teach or suggest passing electromagnetic waves within particular wavelength bands through first and second dynamic angles, with the first and second angles being independent of each other. Riley instead describes the embodiment shown in Figure 29 *as being stationary*. While Riley does provide an alternative embodiment where the imaging system may be in motion relative to the object being imaged, Riley does not teach or suggest *dynamic and independent* relative movement existing between the different deflectors of the imaging system. Thus, Claim 56 patentably distinguishes Riley.

Rejections Under 35 U.S.C. §103

The Office Action rejects Claims 1, 3-8, 11, 26, 27, 29, 31-36, 39, 54, 55, 57, 59-65, 67, 79, 80, 82, 83, 85, 98, 99, 101, 114, 115, 117 and 118 under 35 U.S.C. §103(a) as being unpatentable over Rockwell, U.S. Patent No. 6,327, 063 (Rockwell) in view of Sakanaka, U.S. Patent No. 7,058,307 (Sakanaka), and Riley. The Office Action also rejects Claims 2, 30, 58 and 81 under 35 U.S.C. §103(a) as being unpatentable over Rockwell in view of Sakanaka, Riley, and further in view of Rice, U.S. Patent No. 5, 347, 387 (Rice). The Office Action further rejects Claims 66, 86, and 102 under 35 U.S.C. §103(a) as being unpatentable over Rockwell in view of Sakanaka, Riley, and in further view of Huang et al., U.S. Patent No. 6,643,064 (Huang). Applicants respectfully traverse these rejections.

Discussion of the Rockwell and Sakanaka References:

Rockwell illustrates a system and method for free space communication (abstract). The device of Rockwell includes a fine-pointing mirror 62 for steering optical signals (Figure 2).

Sakanaka illustrates a free-space optical communication apparatus including a storage unit which stores angle-setting information for a moveable mirror 24 configured to communication with a plurality of other apparatuses 11a-c (abstract, Figure 1).

Discussion of Claims 1, 3-8, 11, 26, 27, 29, 31-36, 39, 54, 55, 57, 59-65, 67, 79, 80, 82, 83, 117, and 118 in View of the Rockwell, Sakanaka, and Riley References:

As should be appreciated from the above discussion relating to rejections under 35 U.S.C. §102, Claims 1, 29, and 57 all require *wavelength dependent deflectors which dynamically* and independently steer the electromagnetic signals passing through the aperture structure to and from remote devices. Neither Rockwell nor Sakanaka teach or suggest wavelength dependent deflectors. Riley teaches *static* wavelength dependent deflectors. While Riley does discuss that an imaging system, *as a whole*, may be in motion, Riley does not teach or suggest the deflectors of the imaging system moving *dynamically and independently* relative to one another.

Therefore, a combination of Rockwell, Sakanaka, and Riley would feature deflectors which are *static* with respect to one another. Thus, amended Claim 1 (from which Claims 1-8, 11, 26, 27, and 117 depend), amended Claim 29 (from which Claims 30-36, 39, 54, 55, and 118 depend), and amended Claim 57 patentably distinguish the prior art of record taken individually or in any combination, since the prior art of record fails to show dynamic wavelength dependent deflectors.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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